

AMATEUR RADIO



Published in the interests of Amateur Radio
by the W.I.A. (Vic. Div.). Official Organ
of all divisions of the W.I.A.,
and the R.A.A.F. Wireless Reserve



PRICE

6^D

NOVEMBER, 1935

The "505"



The latest addition to their 2½ in. Instruments

0.50 Millivolts D.C.

0.5 Volts A.C.

0.1 Milliamps D.C.

0.1 Milliamps A.C.

1000 Ohms per Volt

All in the one Instrument, with Selector Switch.

Stocks Have Arrived

NOYES BROS.

(MELBOURNE) PROPY. LTD.

597-603 Lonsdale Street

Phone Central 10105

AUSTRALASIAN ENGINEERING EQUIPMENT CO.
PTY. LTD.

"Evans House" 415 Bourke Street, Melbourne, C.1

Whatever the
Mitter

use



Condensers

and be

SURE

High Voltage

U

S

E



BIRNBACH PORCELAIN INSULATORS



"BIRNBACH" Insulators are made in White and Brown Porcelain. Types with prefix J denote Jack Type for Standard G.R. Plug. All others are fitted with Screw.

For a Special Quote on these lines SEE US.

Type	Height	Price	Type	Height	Price
458	$\frac{5}{8}$	1/8	866	1 5/16	1/8
478	$\frac{7}{8}$	2/6	866J	1 5/16	2/-
478J	$\frac{7}{8}$	3/-	966	1in.	1/2
4125	1 1/4	3/-	966J	1in.	1/6
4125J	1 1/4	3/6	400	G.R. Plug	1/6

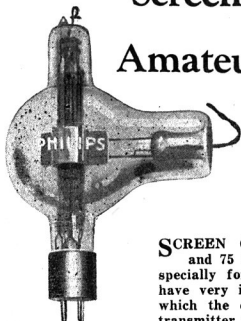
FINE GRANULE MICROPHONE CARBON

We have small supplies of this carbon in stock, of the Polished Granule Type which we can sell to Amateurs only at 12/6 an ounce nett.

Screen Grid Valves

For

Amateur Transmitters



Types:
QB2/75, QC05/15

quarter of actual size

anode-control grid capacity to a minimum. When used as H.F. amplifier or frequency multiplier in controlled transmitters there is practically no reaction of the anode circuit on the grid circuit, and self-oscillation is impossible with screening outside the valve. Neutralisation is unnecessary, so it is very easy to alter the wave-length at short notice. These screen-grid valves give greater amplification than triodes under the same conditions.

Table A shows the various electrical properties of the Philips amateur transmitting valves:—

CHARACTERISTICS:

Table A. Type.	Screen Grid Valves	
	QC 05/15.	QB 2/75
Filament Voltage	4.0	10.0
Filament current*	1	3.25
Saturation current*	400	2,000
Anode voltage	400-500	2,000
Screen grid voltage	75-125	300-500
Max. anode dissipation	15	75
Anode dissipation on test	20	100
Max. screen grid dissipation	3	15
Amplification factor*	225	200
Mutual conductance (slope)*	1.4	1.4
Int. resistance*	160,000	150,000
Anode-grid capacity001	.02
Max. diam. of bulb	50	100
Max length	160	210

*Approximate values.

PHILIPS

TRANSMITTING VALVES

AMATEUR RADIO

Published by the Wireless Institute of Aust., Victorian Division.

Vol. 3. No. 11

1st November, 1935.

INDEX

Editorial	5	Federal and Victorian Q.S.L. Bureau	14
Radiating Systems	6	Hams and Hamming	15
VK6 Fires up Five	9	Divisional Notes:	
A.C. Operated Keying Relay and Time Delayed Switching System	10	Federal Headquarters	20
Correspondence	10	N.S.W. Division	20
Fisk Trophy Contest	11	Victorian Division	23
28 and 56 M.C. Section	12	South Australian Division	24
R.A.A.F. Wireless Reserve Notes	13	West Australian Division	25
Federal Executive Notes	14	Tasmanian Division	25

WIRELESS INSTITUTE OF AUSTRALIA. OFFICE-BEARERS:

Federal Headquarters:
Box 2127 "L," G.P.O. Sydney

President:
W. M. MOORE (VK2HZ)

Vice President:
P. ADAMS (VK2JX)

Secretary:
H. W. CALDECOTT (VK2DA)

Traffic Manager:
E. L. COLYER (VK2EL)

Treasurer and Publicity Officer:
W. E. C. BISCHOFF (VK2LZ)

Victorian Division

Patron:
CAPT A. E. PAYNE (VK3PP)

President:
W. R. GRONOW (VK3WG)

Secretary:
R. ANDERSON (VK3WY)

Treasurer:
J. G. MARSLAND (VK3NY)

Assistant Treasurer:
E. KILBORN

Traffic Manager:
R. II. CUNNINGHAM (VK3ML)

Magazine Committee:

H. KINNEAR (VK3KN), W. R. GRONOW (VK3WG), Secretary,

R. H. CUNNINGHAM (VK3ML) Technical.

L. MONCUR (VK3LN) Distribution, V. MARSHALL (VK3UK)

All Communications and MSS. should be forwarded to the Editor, "Amateur Radio,"

BOX 2611W G.P.O. MELBOURNE

Subscription to "Amateur Radio" is 6/- per Annum (Post Free), paid in advance.

Should you not receive your Copy of "Amateur Radio," notify your Divisional Secretary at once.

Advertising and Publishing Office: Address Publicity Manager, "Amateur Radio", 126 Whitehorse Rd., Box Hill, E11. Phone: WX 2429

NOTE.—ADVERTISERS' CHANGE OF COPY MUST BE IN HAND NOT LATER THAN THE 20th OF THE MONTH PRECEDING PUBLICATION.

Amateur Radio

IT REQUIRED TWO YEARS

Here is the book you have waited for . . . a Handbook by "RADIO." New as to-morrow. Chockfull of the kind of information you don't find in other books. Frank C. Jones, W. W. Smith, Jayenay Hawkins, Clayton F. Bane, I. A. Mitchell, D. B. McGowan . . . are the men who were assigned the task of writing this modern handbook, one the novice and experienced radio man alike can understand. There are 64 pages of facts on receivers . . . from a one-tuber to a 12-tube crystal superheterodyne, with complete information on the engineering, design, construction and operation of each. You will find ANY high-frequency receiver of your choice described in this book. Each receiver is the best in its field. Then there are 64 pages of new facts on CW transmission, showing how to design any kind of a transmitter from a one-tuber for beginners to a de luxe 1 KW high-efficiency transmitter. The many new methods of neutralizing, antenna coupling, low-C tube operation, etc., are all described in this great book. 64 pages devoted

TO WRITE THIS BOOK.

to Radiotelephony. Here, again, you find the information needed for building any kind of a phone set from the single-tuber for beginners, to the 1 KW job for the high-power man. New modulation systems . . . all the data on various types of new controlled-carrier systems . . . many pages of new microphone data . . . theory of radiotelephony, etc. Everything is explained, step by step. You cannot go wrong if you use this book as your guide to better radio. And another 64 pages devoted to ultra-high frequency communication, showing everything important. Last, but not least, the antenna chapter is alone worth the price of the book. It is COMPLETE! Tells how to tune all types of antennas for best results. Gives tables, charts, curves, etc. The chapters on transformer design, audio systems, rectifier, and filter design, monitors and frequency meters, laboratory equipment, transmitting and receiving tubes tell you what you want to know. Here is your new AUTHORITY. 7/6 per copy, plus 5d. postage.

McGILL'S AGENCY

183-185 ELIZABETH STREET, MELBOURNE, C.I.

TRAVELTONE RADIO . . .

Have opened a New and good used Parts Store; Carrying a comprehensive range of new Parts in the hands of A. Walters (late operator R.A.N.)

The Good-used Department in charge of J. Dalzell (4½ years in charge of Homecrafts Trade in Department) who will cater for all your requirements.

SHURE TWO BUTTON MIKES; SHURE CONDENSER MIKE
PIEZO ASTATIC MIKES; PIEZO ASTATIC PICK-UPS;
HICKOK METERS ALL TYPES; AMPERITE VELOCITY MIKES

Send Stamped Envelope for full Particulars

. . . 369 Bourke Street, Melbourne, C.I

Telephone F 1869

ARE YOU A MEMBER?

Subscriptions to the W.I.A. (Victorian Division) are
as under:—

Full Member, 20/- Associate Member, 16/-

Country—Full Member, 14/6; Associate Member, 8/9

Student Member, 7/6.

Entrance Fee, 2/6

Write to Secretary, Law Court Chambers, 191 Queen St., City



EDITORIAL . .

There can be no doubt that amateur radio, as a hobby, has attracted more "types" of men than any other we know of. We have them rich and we have them poor, and possibly with no two minds alike. There are scores of reasons why a chap takes up radio, and to quote even one example would be superfluous; but there is a sole common object behind all these reasons, and that is to get what one can out of the game, whether it be enjoyment or satisfaction. The number that are in the game for what they can put into it are few and far between, but let that pass!

Radio costs money, and so does the enjoyment or satisfaction that is derived from it. The rich man can naturally afford more than the poor man, but, unless he is a fool, he is just as anxious to get as much out of radio per pound put into it as his not-so-fortunate brother ham.

Watts-per-pound is one form of efficiency and financial gain, but to get those watts requires something more than skill—it requires £.s.d. A "wise" ham is one who can make his finance stretch a long way. A still wiser ham is one who considers that a shilling well spent is a pound saved. The former "wise" ham thinks that by buying a dozen cheap articles for his pound he is getting more for his money than the latter, who purchases only one good article for the same amount.

Experience of those who have been buying radio gear for years tells that bargains in the "junk" store are few and far between. It also teaches that cheap gear is actually dearer in the long run than the quality stuff. The life and performance of the cheap gear cannot approach that of the genuine article. Workmanship, precision and efficiency cannot be purchased cheaply.

To have a shack of quality gear is something to be proud of, whether it represents £2 or £200. Junk has no attraction, and speaks for the intelligence of its owner. The advertisements in "Amateur Radio" come from houses of repute and reliable quality. Buy their goods and watch the watts as well as the bank balance go up.

A Message from the Advertiser—

"HELP US TO HELP YOU!"

Radiating Systems

Design and operation of the Hertz antenna and transmission line feeders.

By Douglas N. Llanett, N.S.W.

Antennas may be divided into two fundamental groups—the Hertz antenna and the grounded antenna.

With the grounded antenna, this operates as a capacity with the flat top forming one side and the ground the other. Power is supplied near the ground connection, while the actual length normally is calculated in $1/4$ wavelength, or if operated on a harmonic frequency, $3/4$ wavelength, $5/4$ wavelength, etc.

Here the current and voltage distribution will be such that the current at the extreme end of the antenna will be zero and maximum at the ground connection; while the voltage will be maximum at the extreme end and zero at the ground. This is illustrated in Figure 1.

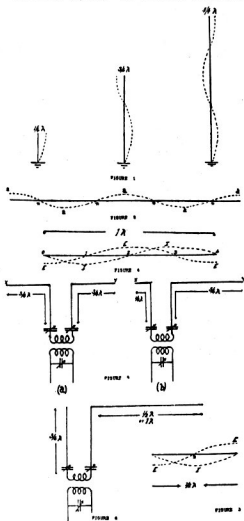
If this antenna is loaded with inductance and operated at a frequency lower than its fundamental, the same conditions will exist; although the symmetry of the voltage distribution curve will be distorted as electrical length has been added in a lumped form. The potential across the coil will be high. But all this will not change the fundamental voltage distribution in which the voltage is maximum at the extreme end and zero at ground. The current and voltage are displaced 90 degrees, thus causing zero current at the extreme end and maximum at ground.

The Hertz antenna, however, operates independent of the ground connection. This may be erected vertically, horizontally, or in any desired plane.

Electrical disturbances travel through space or along a good conductor at a velocity of approximately 3×10.8 metres per second. Thus, if such a disturbance travels along a long conductor isolated in space, or practically free from the effects of other conductors or ground, the effect will be

practically the same as when the disturbance is travelling through space.

And if the wire is very long compared to the wavelength of the electrical energy, there will be set up "standing waves" of voltage along the



conductor. This is nothing more than points of maximum and minimum voltage, as shown in Figure 2.

This is a true wave motion illustrating the manner in which the electrical disturbance travels along the

conductor. The points "n" are the nodes or points of zero voltage, and points marked "a" are the anti-nodes or points of maximum voltage. The distance between two peaks of the same polarity is one wavelength. And in a good conductor, if perfectly isolated in space, the linear distance along the conductor corresponds closely to the same distance in space between the crests of two waves.

Practically, however, the conductor always is near the ground, towers, or other conducting objects, so it is not perfectly isolated in space and a certain correction factor must be used. These increase the distributed inductance and capacity of the conductor, so that actually the wavelength of the energy is slightly greater than the linear dimensions of the conductor.

Now, if the conductor, instead of having an infinite or great length, is exactly one-half a given wavelength long; and an electrical disturbance, whose period is such that it corresponds with this given wavelength introduced, a wave motion will be set up in the conductor. The standing wave will be such that the voltage node is in the exact centre with the loops at each end. The current will be 90 degrees out of phase, as illustrated in Figure 3.

With the supposition of a single initial impulse of energy transferred to this conductor, the impulse will travel in the form of a wave from one end to the other. If some means were provided for dissipating all this energy, nothing would happen. But in the free conductor, no such means are provided; and when energy reaches the end, it is reflected back and so on until all the energy has been expended in the resistance of the system. Thus the system will oscillate at a given frequency, which frequency depends entirely upon the length of the conductor.

With arrangements to supply a continuous supply of energy at this exact frequency, the amplitude of oscillations will be maintained and the conductor will form an excellent radiating system.

Figure 4 illustrates how the Hertz antenna is suitable for harmonic operation.

In designing the Hertz antenna, however, the fact that the velocity of the wave through the conductor is not quite equal to its velocity in space must be taken into consideration. At frequencies above 30,000 Kc/s. the correction factor is approximately .9, and for frequencies below 30,000 Kc/s. a correction factor of .94 to .96 should be used. But due to the high resistance of the antenna at the higher frequencies, this value is not critical.

Calculating the length of a half-wave antenna for operation at 8,500 Kc/s.

$$\text{Wave-length} = \frac{V}{F} = \frac{300,000}{8,500} = 35.29 \text{ metres.}$$

$$\text{Half wave-length} = 35.29/2 \times .94 = 16.59 \text{ metres.}$$

$$\begin{aligned} \text{Converting} \\ \text{to feet } 16.59 \times 3.28 &= 54.45 \text{ feet, or} \\ &54\text{ft. } 5\text{in.} \end{aligned}$$

This antenna would be suitable for 17,000 Kc/s. operation on its second harmonic, or 25,500 Kc/s. on its third harmonic.

For supplying power to such an antenna, there are two general methods—the tuned feeder or the untuned matched impedance transmission line.

The tuned feeder is nothing more than a tuned extension from the antenna into the coupling circuit of the transmitter. Either current or voltage feed can be used.

Figure 4 shows that there is a current loop at the odd $1/4$ wavelength intervals from the end of the antenna. This diagram also illustrates that the voltage loop occurs at the end and at every even multiple of $1/4$ wavelengths from the end of the antenna. Thus, if a current feed system is used, power must be fed into the circuit at a current loop, and in voltage feed the power is supplied at a voltage loop.

In the case of current feed, arrangements such as Figure 5 may be used. In both of these, the coupling coil is located at the odd $1/4$ wavelength multiple from the end of the antenna. In regard to the left-hand end of the antenna in (a) the coupling is made at the third $1/4$ wavelength point, and in (b) the coupling is made at

the first $1/4$ wavelength. In both cases the total length of the antenna, including the feeders, is $1\frac{1}{2}$ wavelengths and is operated at its third harmonic.

Since inductance is necessary for coupling to the transmitter, there must be series capacities on each side of the inductance to neutralise its effects on the electrical length. If the lengths are properly proportioned, however, and if the feeders are spaced only a few inches apart, the radiation from the two feeder wires will cancel, and the only appreciable radiation will be from the straight portions, x-y.

For current feed from the feeders to the radiating portion of the antenna, the total electrical length of the feeders should consist of multiples of $1/2$ wavelength. Under these conditions, the length of the radiating portion x-y will also be a multiple of $1/2$ wavelength, and the feeders will connect at a current loop. Thus, in Figure 5 (a), x-y is $1/2$ wavelength, and each feeder is $1/2$ wavelength; while in (b) x-y has a length of one wavelength and each feeder of $1/4$ wavelength, with the entire system having an electrical length of $1\frac{1}{2}$ wavelengths as in (a). The difference, however, is that in (a) x-y is a half-wave antenna and in (b) it is a full-wave antenna.

In voltage feed, the most commonly used antenna employs two wire tuned feeder with a voltage loop at the point of connection. The radiator may be a half or full-wave antenna, with each of the feeder wires an odd multiple of $1/4$ wavelength. The same arrangement for coupling the feeders to the transmitter may be used, as shown in Figure 6.

By means of the series condensers shown in each feeder line, the electrical length of the antenna can be shortened somewhat so that tuning range can be had. But if it is desired to slightly lengthen the electrical length, parallel tuning may be used. Thus a limited frequency band can be covered with an antenna and feeder system by tuning the feeder circuit.

The untuned matched impedance transmission line, however, has the great advantage that its design and operation are almost independent of length.

A two-wire transmission line has a surge impedance that is a function of the spacing between the conductors and the diameter of the wires. In the tuned feeder systems, the length of the feeders was just as important as the length of the antenna, because the entire system operated at some resonant frequency with the standing waves along the entire length of the conductor, due to the reflection of energy.

But if a transmission line is terminated by an impedance equal to its surge impedance, there will be no reflection along the transmission line, and therefore no standing waves on the conductors. And in common with all transmission lines working into matched impedances, the circuit also will transfer power very efficiently.

The desirability of this system is that the antenna can be loaded where buildings, etc., are mostly out of the induction field, with the consequent decrease in the absorption of power from this field. At high frequencies this becomes more and more important, because of the screening effect of buildings.

A 600 ohm impedance usually is accepted for most radio frequency transmission line work. Since this impedance is a function of the spacing and the diameter of the conductors, the following equation, which is based on a 600 ohm surge impedance, can be used:—

$$D = 75d$$

where D is the distance between the centres of the conductors, and d is the diameter of the conductors.

Thus, in constructing a 400-foot transmission line to have a surge impedance of 600 ohms, using No. 4 copper wire, we can determine the spacing required. From the wire table, the diameter of the wire is 204.3 mils.

$$D \ 75d = 75 \times .2043 = 15.3 \text{ inches.}$$

Of course it will be necessary to feed the transmission line from a 600 ohm circuit and feed it into a 600 ohm circuit if the greatest transfer of power is to be obtained.

DK6 Fires up Five

By 6LJ.

Some dope has been gathered together by 6CA with the aid of 6HW, 6CY and Mr. Heinrich's 6GEH, on 56 m.c., but all are too bashful, so I have done the dirty work. The transmitter was left running at 6A's qra, and the receiver in a car was taken distances from 3 to 3½ miles radius around the transmitter. The aerial used on the rx was a 6ft. wire inside the car, and several peculiarities noticed. For a start, definite fading was noticed every 20 feet travelled from R max to R2, like an undulating plane. Even a qsc, complete fade out was noticed in clear paddocks, open fields and in a clear open line to the transmitter at certain intervals. The directional properties are very pronounced; this being proved by the fact that when the car was in one direction signals were R max and turn the 'bus around sigs were only R4.

Duplex work was done with 6HW and 6CY, but the latter stations were on 3.5 and 7 m.c. According to reports by these stations, the tonal quality was excellent and the frequency as stable as crystal.

As a point of interest, 6CA has a bel neighbour, who receives him (6CA) excellent on 7 and 3.5 m.c.'s, but when he qsy 56 m.c., CA "thort it wud be O.K." However, in the course of conversation, the bel praised the quality of his 56 m.c. telephony, so 6CA is going to buy that bel set as a 56 m.c. receiver. HI!

Now for a bit of dope on the gear:— The transmitter uses a pair of 45's with 350 volts and innumerable mills arranged in a push pull, as previously published by 3ML.

The grid shorting bar is about 21 inches from the outside end and connects to an RF choke and ordinary 25,000 ohms bias. The plate bar is about 16 inches from outside end and usual to RFC and B + via audio choke, as per Heising modulator. Plate and grid rods are ¼ inch tubing spaced 1½ inches and run in parallel vertically spaced from each other by about 6 inches. The aerial is our friend, the Pickard system with three 2-turn coils wound in spiral form. Inside diameter is ½ inch to outside diameter of 2½ inches. First coil is ½ inch to 2½ inches to ¾ inch inwardly wound, and the third ½ inch to 2½ inches outward. The feeders clip on the tank rods and can be adjusted for individual improvements.

The aerial also has copper rods, two lengths each 46 inches tapped on the coils, as shown:—

More dope on this antenna can be had from August, 1933, QST page 24.

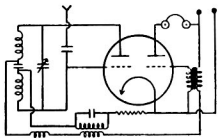
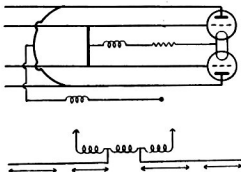
And now the receiver. This piece of work employs a Type 19, as detector and audio.

L1 and L2 are each 7 turns, 16 SWG copper wire, ½ inch interval diameter spaced diameter of wire. RFC consists of 30 turns, 30 SWG on a ½ inch diameter, and winding occupying about 1¼ inches. The quench coils are as shown, 1200 and 800 turns of 38 SWG, but the size of wire doesn't seem to make much difference. The condenser (C1) is a very small one, consisting of two ½ inch square brass plates, mounted ¼ inch apart.

Well, gang, all the dope for the present, and let's here in on 56 m.c.

TECHNICAL EDITOR'S NOTE.

1. Correspondents to "A.R." have reported having had greater success with 46's in place of 45's on 56 m.c. These tubes are well worth trying.



2. Much RF has been lost in several transmitters through the use of moulded mud valve sockets. Use only Isolantite or porcelain types.

3. Every ham who has done any mobile reception on 56 m.c. has noticed the dead spots 6LJ refers to every wave length or so. It is well, when erecting an aerial around the shack, to experiment with the location of same. A few feet either side might make all the difference.

4. When using a vertical dipole, near ground, always try reversing feeder connections. It makes a difference sometimes. Better still, don't use dipoles; they are NBG. Use an array of same kind and get efficiency.

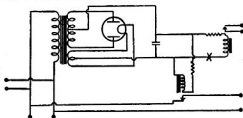
5. Correct impedance matching on 56 m.c. and above is imperative if a few watts are to do their stuff.

A.C. Operated Keying Relay and Time Delayed Switching System

By VK2ER.

The author, whilst "pensioning off" all batteries in the shack, had to find a method of operating the keying relay. Plain A.C. proved out of the question. The method by which the trouble was overcome is shown in Fig 1. The rectifier valve came out of a Philips' 1.3 amp. battery charger, and is of the mercury vapour type.

When it was noticed that this valve made a considerable time lag before coming into operation, it immediately suggested how the pressure could be raised on the plates of a pair of 281 rectifiers. The author found that if filament and plate were switched on together on the 281 valves, the limit of plate voltage was 700v. Above this they flashed over.



By having the filaments hot before applying plate voltage, successful operation could be had on 1200 volts (yes, using the same valves).

Accordingly the plate pressure to the 281's was raised and delayed plate transformer switching arranged by the relay connected across the output of the keying rectifier. This relay also constituted a ballast on the system, with beneficial results.

An alternative to the above would be to use high resistance relays and a 100vct or 200 vct transformer, a 282 rectifier and, say, an 8 mfd condenser. The supply does not need to be well filtered. Very nice relays for either system may be purchased from automatic telephone accessory houses. However, it may be necessary to rewind them to ensure satisfactory insulation of the winding from frame.

The resistors shown in Fig. 1 are old filament rheostats.

Correspondence

Cloncurry, Queensland,
September 24, 1935.

The Editor, "Amateur Radio,"
Box 2, P.O., S. Melbourne, S.C.5.

Dear O.M.,—Please allow me a little space in your worthy magazine in which to ventilate my pent-up feelings regarding the present "rotten operating procedure" adopted by some hams.

First of all there is the fellow who, by no fault of his own, is compelled to use a bug key. The code manufactured by this type of key, when in the hands of a man who knows how to adjust and use it, is most pleasing to the ear; in most cases more preferable than the average sending on an ordinary hand key. But what do we get? A most horrible corruption of code, dots going at such speed that they sound only a blur, and the dashes, following on at about 12 words per. Then, again, ridiculous speeds when calling. The fellow who calls endless CQ's, then signing his call once at about 45 per, running everything together into such mush that only he himself knows what he is sending. Probably these fellows think this style, and beneath their dignity to send at a reasonable speed, plus clarity.

Then we have the other extremist—the fellow who sends so painfully slow and repeats himself every now and then that it is absolute agony trying to listen to him—and the fellow who calls CQ about 20 or more times, plus DX, etc., at about 5 WPM, and keeps this up for about 15 minutes before signing, then wondering why he never works any DX. Hang it all! The regulations state 3X3 calling, repeated as often as necessary to establish communication. Now, I would like some of these chaps to convince me that they are observing this particular regulation. It would do some fellows a lot of good if they were to spend a little time listening to the standard of operating practised by most commercial operators, particularly the "Bug Fiend." For his benefit I would ask him to listen to VIS when on press schedules, and take an example of good sending; then try to use this lesson for everyone's benefit when playing with his bug.

Furthermore, I would like to know why some chaps must operate outside the assigned frequencies. During the course of my duties a watch is maintained on 45 metres with the overseas mail planes, and at times it is quite surprising the number of self-controlled ham signals you hear on this wave, calling in blissful ignorance of their frequency, until by chance someone should hear them and be good enough to let them know they are off frequency.

This sort of thing cannot go on for ever. The time will come when the radio inspectors will act, and the lads who commit this breach will undoubtedly be sorry that they were not a little more particular in checking their frequency, to see that they are within the assigned band before commencing to operate.

Trusting that these remarks will be accepted with the correct spirit.—Yours faithfully,

V. L. KERR (VK4LK/VJI).

Fisk Trophy Contest

The Fisk trophy contest entrants have been examined by the Federal Executive and carefully checked. They officially declare VK4 the winners, VK3 second, and VK7 third. The total points scored by the three leading stations in each State were as follows:—

VK4, 4192 (4EL, 4BB and 4AW); VK3, 4074 (3MR, 3RJ and 3HL); VK7, 3986 (7XL, 7KV and 7JB); VK5, 2963 (5FM, 5KL and 5MY); VK6, 2495 (6SA, 6FO and 6MN); VK2, 2416 (2ZV, 2EO and 2KJ); VK9/8, 460 (9NW).

A total of 55 entrants was received from all States, VK3 with 16 entrants, and VK2 and VK4 with 11 entrants each. VK5 with eight entrants and only a few from VK6, 7 and 9.

To VK5FM goes the honor of having the highest individual score of all stations participating, and also, incidentally the highest number of qso's (176) contacts.

The following are the points of the leading twelve stations throughout Australia, irrespective of States:—VK5FM, 1676; VK4EL, 1602; VK7XL, 1520; VK3MR, 1466; VK4BB, 1428; VK3RJ, 1331; VK3HL, 1274; VK7KV, 1266; VK7JB, from all State, VK3 with 16 entrants, 1200; VK4AW, 1162; VK4US, 1156; VK2LZ, 1124 (non-competitor, Federal executive member).

It was apparent that the majority of the participants enjoyed this test and all are looking for another, which encourages operation on all ham bands. In fact, the majority prefer it to a relay test; so those relay operators had better have their say now if they prefer that type of test. The Federal executive wishes to arrange these Fisk tests to please the majority, and so far the majority do not favor the relay tests. An expression of opinion on the type of the next test will be cordially received and appreciated.

A few extracts from the participants make very interesting reading:—

VK2ZV says, "My congratulations on arranging such an FB test, must say on our part that we certainly had an FB time. Personally, I think this type of test is to be preferred to the relay type."

VK3MR says, "As a matter of fact, it was the best test that I have ever been in, with plenty of time to work DX in between qso's. Personally, I did not know there was so much fun and interest in a 'local' test after being in many DX tests."

VK3RJ says, "Contest proved very interesting, and am glad to congratulate FHK on amended rules and added interest."

VK3HL says, "It was a good show and a decided improvement on the contests requiring lengthy messages to be exchanged."

VK3ZC, "Thanks for the contest. By far the best yet. Rules and scoring system were FB—the bonus points being quite worth the work expended in earning them."

VK3UK, "The contest itself was very pleasant departure from the ordinary run of tests and the members of FHQ are to be commended on the introduction

Complete Scores of Participating Stations in Fisk Trophy Contest.

State: VK2	VK3	VK4
Score: 2416	4074	4192
*2LZ 1124 ..	3MR 1466 ..	4EI 1602
2ZV 916 ..	3RJ 1334 ..	4BB 1423
2EO 890 ..	3HL 1274 ..	4AW 1162
2KJ 610 ..	3ZC 1112 ..	4US 1156
2CW 508 ..	3ML 860 ..	4UU 940
2NY 498 ..	3BQ 720 ..	4JF 650
2DQ 400 ..	3HG 590 ..	4UR 621
*2EL 350 ..	3UK 535 ..	4JU 620
2HY 305 ..	3XQ 450 ..	4YL 474
*2HZ 250 ..	3OW 435 ..	4UW 338
2YB 100 ..	3PS 416 ..	4DO 63
— ..	3RH 388 ..	—
— ..	3CG 375 ..	—
— ..	3HE 365 ..	—
— ..	3WQ 180 ..	—
— ..	3MK 75 ..	—

State: VK5	VK6	VK7
Scores: 2963	2495	3986
5FM 1676 ..	6SA 1000 ..	7XL 1520
5KL 655 ..	6FO 780 ..	7KV 1266
5MY 632 ..	6MN 715 ..	7JB 1200
5RT 335 ..	6RW 184 ..	—
5RD 196 ..	6CP 82 ..	—
5LD 170 ..	— ..	—
5HD 126 ..	— ..	—
5ZX 70 ..	— ..	—
— ..	— ..	VK 9/8
— ..	— ..	9NW 460

*Members of Federal Executive and Non-Competitor.

of a 10 letter cypher, and also the allocation of bonus points. To win, a man needed not only to be a good operator, but also required flexible and efficient gear."

VK4EL, "The contest seemed very well supported, and all bands appeared to be used by stations in all States (except, of course, VK/8/9)."

(Continued on page 14)

28 and 56 M.C. Section

Record Smashing on 28 M.C.

(Conducted by VK3JJ).

Very promising changes occurred on the 28 m.c. band during October, and the stations who were active broke some long-standing records. The credit of the first 28 m.c. contact with Europe goes to VK4EI, who worked ON4AU on October 5. The following day VK2LZ contacted F8VS, but 4EI managed QSO's with D4KPJ, F8VS, ON4AU and D4ARR. He has since worked several more Europeans.

VK4BB has been having a better run with the W's, but on October 9 worked both F8VS and ON4AU. On the first day of the VK/ZL DX contest, he worked 14 W's, J2IS and X1AY on 28 m.c., thereby gaining a start of 8000 points on bonuses alone. FB, OM!

VK6SA reports that October 6 seemed to be an International super super DX day, and although his share was small, he had the pleasure (?) of hearing 4BB and 4EI making their excellent logs! 6SA heard R2 signals from ZS1H at 0350 GMT, and raised him with the first call getting R3. He was unable to obtain ZS1H's contest number owing to fading. This was the first 28 m.c. QSO with South Africa since 1929. 6SA has worked 4BB several times, also VK2BX and PK3ST.

In Victoria most of the work has been done by 3BD, 3YP and 3BQ. The latter has not been very successful with DX, but 3BD and 3YP, who are often able to be on the air on week-days, have worked dozens of Yanks, also X1AY and J2HJ. They have heard signals from LU1EP around 2230 GMT, but could not QSO. 3BQ and 3BD have heard ON4AU in the evening.

The only other VK3's active were 3MR, 3NM, 3BW and 3KX, but they have had very little luck with the DX, making only one or two contacts. Some of the strongest W's are 6DIO, 6CXW, 6VQ, 6BWC, 5QL, 7AVV, 6GX and 6DHZ. J2HJ and X1AY also put over very strong signals at times. Other DX heard include W9NY, W9GBJ, W4AJY, W6-JNR, W3EVT, W4MR, J2IS, W5AFV, W2TP, etc. Some of these stations have been heard calling VK5FM, VK5HG and VK7KV, so, no doubt, they are getting their share of DX.

The best time for Europe appears to be in the early evenings at present, but the peak period for W's is apparently getting earlier, and in the Northern States they are coming through before 7 a.m. The J's are likely to continue coming in at various times during the day.

With all the DX work going on and the apparent good conditions, it is surprising that Interstate signals have been very weak when heard at all, the reverse to March and April last. Evidently, the minimum skip is at present too great for effective Interstate work, but this should

decrease with the approach of Summer.

There has been a little activity on 56 m.c. around Melbourne during the month, and 3DH, 3KQ and 3OF continue to hold their three way QSO's. They are joined now and then by other stations, and J3G carried out tests with them one night. 3WQ has built a one tube transceiver, but no QSO's to-date. 3BD is also thinking of trying out 56 m.c., mainly with a view to DX. It is quite possible that Interstate work will be accomplished at times during our mid-summer, similar to the 800 to 1000 mile contacts made recently in U.S.A.

EUROPE AT LAST!

This news overshadows everything else in N.S.W. 28 m.c. work. VK2LZ's patience was rewarded with the first VK2/European QSO when he worked F8VS at 8 p.m. on October 6. Not to be outdone, VK2HZ worked ON4AU two nights later. The following week-end the peak period was two hours earlier and 2LZ worked G6LK and F8VS again. At 6.15 p.m. the signals faded, but VK4EI, who was audible on and off, seemed to be still working stations at 6.30 p.m.

Yanks! —well, are they any more unusual now on 10 than on 40? Hi! 2LZ and 2HZ work them by the dozen these week-ends. 2LZ has received a report via a W7 that LU1EP heard his 'phone R8!

Naturally, the news of 10 m.x. DX has meant newcomers and 2AS and 2HF have appeared and worked W and J. 2BX, one of the old-timers, doesn't appear to be able to QSO W's; is it due to his rough chirpy signal and the W's S.S. receivers?

2HY is another who seems to be having difficulty with QSO's. He can get as good a report from J's as 2LZ, but can't raise or hear many W's. He can hear Europeans well, but can't work them either. 2XY and 2YC are still among the missing, but they should be on again very soon.

We VK2's would like to sympathise with the J's, re ex-2EP; we didn't think he could do it either from Melbourne. Hi! Poor old 2LZ! Beaten by a day for first European QSO, when telling of working the G said, "I worked G6LK, but I suppose 4EI has worked him before me."

In the BERU 28 m.c. test the scores known here are X1AY 4500, VK2LZ 4071, W6VQ 2900, VK4BB 1670, J2HJ 1250, VK2HY 782, VK2HZ 300, VK2YC 117.

In the VK/ZL DX contest 2LZ and 2HZ had 13000 and 8000 points respectively at the end of the second week-end.—VK2YC.

R.A.A.F. Wireless Reserve Notes



VMC

Total Msgs.	306
Stns. Rptng.	11
Ave. Per Stn.	27.8



VMC 1

Total Msgs.	171
Stns. Rptng.	4
Ave. Per Stn.	42.75



3A6

Total Msgs.	68
-------------	----

(Federal Notes by the C.O.)

The compilation of the second issue of the Reserve Bulletin is well on the way now. In this number a considerable amount of extra procedure will be given in order to expedite the present traffic handling. As the issue will not be out until late November there is still time for further suggestions and contributions from all members.

The P.M.G. laboratories received a large bundle of crystals this week for calibration before issuing to members. They should not be long now. Holders are to be supplied with these pebbles on the plug-in style.

Federal watches, held on Monday nights, on 4,155 Kcs, have turned into schools for exercises. The whole of the 7th District attend as well as three of the 2nd. So many have joined that it is hard to conduct a systematic watch owing to the frequency difference of some of the stations. On changes from 4,155 to 3,500 Kcs amidst 'phone qrm and general mush. Three to four hours of exercise work is hard going and 1A1 feels ready for a long sleep after same!

Owing to a shortage of procedure manuals at H.Q., and whilst waiting for the new one to arrive, it has not been possible to supply new members with these books. If any members feel that they could do without their manuals it would be as well if they returned same immediately to the Air Board, and they will be credited with the return.

A totally revised register of members is being printed now and will be posted to all members within a very short time.

THIRD DISTRICT NOTES. (3ZL-VK3UK.)

Owing to the fact that the majority of VMC stations were entering for the VK/ZL Contest this month, schedules on the normal Sunday morning watches have been

suspended for the four week-ends of the contest. Most stations who are not actively engaged in the contest have spent the time rebuilding essential parts of gear which have been long awaiting attention, whilst the remainder have carried on section and inter-section working just to keep their hands in.

3A6 has been endeavouring to get the other hams in Shepparton five-metre minded, and now that one of the five-metre stalwarts (3RS) has gone up to Shepparton for a while, their united efforts should have the town developing an ultra-high complex very shortly.

3B1 is away touring the bush again, and has been so busy he has not had time to get his portable gear functioning properly. He will be in Glenorchy and Stawell as this issue goes to press, and no doubt, with the assistance of 3C3 and 3B3, will have the QRP transmission and receiver on the air before his return to Melbourne.

3C2 has had to temporarily withdraw from his section, as pressure of work is precluding him from keeping schedules regularly. It is with the greatest regret that we are transferring Ken. to one of our inactive sections, as he has been with us from the inception of the Reserve. One of the greatest pleasures we hold in anticipation will be ours when we receive his word requesting transfer back to an active section again.

3VW will be taking his place, and he is making an auspicious beginning, as his fist and signal leave little to be desired.

We have to congratulate 3C6 on his appointment as traffic manager of WIA, Victorian Division. It would certainly be difficult to find a better man than the present Ramsay trophy holder.

By the time this issue is in circulation we will be in possession of our new crystals on their allocated frequencies, and

(Continued on Page 28)

Federal Headquarters Notes

I.A.R.U. CALENDER.

This has been finally dealt with and the I.A.R.U. has been communicated with and told of our decisions. The matter of the Bucharest Conference has, however, been left in obedience until it has been discussed by the Convention, to be held in Brisbane, in January, 1936, where the matter will be discussed in full.

28 M.C. International Test.

This test concluded at the end of September and was, no doubt, responsible for the great interest taken in 28 m.c. during the past year. So far as is known, the world winner will prove to be XIAY with over 4,500 points. The RSGB are to be congratulated on their enterprise in staging such a contest in spite of apparent dead conditions, which were in evidence last year.

VK—ZL Test.

This test should be very interesting and some very high scores are anticipated owing to the manner in which 28 m.c. has become a DX band.

Fisk Test.

This has been won by VK4, while VK3 ran a very close second. 118 points separated these two States. It was comparatively well supported, but much more support could have been forthcoming from many States, notably, VK5 and VK2. Full details appear elsewhere in this issue of Amateur Radio.

(Continued from page 11)

VK4YL, "I enjoyed the contest very much, but as you will see by the log I did not give much time to it. Nevertheless, Madeline, a very fine effort (FHQ)."

VK5RD, "I had a very fine time indeed, during the contest, and have never worked so many stations before in my life in such a short period. The addition of the bonus points for different bands was a swell idea. My congrats to the committee for a fine contest indeed."

VK6SA, "Allow me to congratulate the executive in departing from the usual procedure, whereby 7 m.c. band carries most of the traffic. The system of encouraging multi-band operation by allotting bonuses cannot be too heartily commended."

9NW, "Please do not send the trophy up to me here, as I will have to pay duty on it." All right, Nev, we won't. (FHQ).

10 metres came to light when VK4BR and VK4EI both contacted VK6SA, but otherwise was dead in all States.

20 metres was fairly active from mid-day, but owing to skip between adjacent States only few VK3/5 and VK2/3 qso's were had.

40 and 80 metres were, as usual, well supported, but 160 metres certainly was worth looking into.

Federal and Victorian Q.S.L. Bureau

(By R. E. Jones, Federal QSL Manager.)



KAI CM expresses disappointment with regard to the number of cards he has received from VK. During the present year KAI CM has worked and QSL'd 77 Australian stations, and to date has only 15 received cards in return.

VK3KO has gone to New Zealand to represent his firm for a few years. He expects to be on the air shortly under a ZL call sign, and has taken steps to preserve his VK3KO call during his absence from Australia.

W and J are coming in on 28 m.c. during 9 a.m. to noon at good workable strengths. During the first week in October several—W6, W5 and J—were heard, but only the extremely QRO VK3 stations have managed to QSO them. Commercial harmonics from JNJ, JNB and TDC, at the low frequency edge of the band, are exceptionally strong from noon onward to 5 p.m., and should serve splendidly for VK's anxious to locate the band.

Cards for the following VK3 stations are on hand at the bureau, 23 Landale-street, Box Hill, and will be forwarded on receipt of postage:—BE, BK, BL, BX, BZ, CA, CK, CW, DS, EM, FC, FG, GM, GP, GU, GV, GW, HH, JC, JH, JL, JN, JT, JV, JW, KA, KB, KG, KT, KV, KY, LE, LF, LM, LP, LT, LY, LZ, NG, PM, PY, QX, RE, RW, TG, TU, UJ, WC, WH, WM, WN, WX, XK, XU, ZA, ZK, ZL, ZO, ZR, ZX, VJQP, NYE.

Many of the leaders owed their high scores to contacts on 160 metres with all States (except, of course VK8/9). The average strength between adjacent States was, indeed, surprising and R8 was a good average report, with between 10 and 20 watts input. Unfortunately, VK2LZ was the only VK2 active on this freq., and VK5FM predominated in VK5. Other States were quite well represented, however. The majority left it till the last week-end to try this band and on Saturday night, and on Sunday early, a.m., it was, indeed, alive.

The Federal executive wishes to thank all participating hams for their support, and hope that the next Fisk test will receive even greater support; making it quite a national test, similar to the ARRL sweepstakes.

VEALLS

announce

HICKOK RADIO METES

Laboratory Accurate, Acknowledged
as the highest standard of Quality by
Amateurs and Radio Fans in
America today

Obtainable at Vealls for prices
far below the average cost

◆ ◆ ◆ ◆

● MODEL 46 DC INSTRUMENTS—

D'Arsenal Movement. Milliammeter, Ammeters, Microammeters, Galvo-meter & Voltmeter. (Resistance 1333 ohms per Volt) FROM £3-5-0

● MODEL 47 DYNAMOMETER AC INSTRUMENTS—

Covering the same range as 46 Type
FROM £3-5-0

● MODEL 47T— Thermo. Type Instruments

● MODEL 47X— Rectifier Type Instruments

◆ ◆ ◆ ◆
Also ANALYSERS, OSCILLATORS
and TUBE CHECKERS

Write for Illustrated Price Lists
and full Particulars

VEALLS

243-249 Swanston St., Melbourne
168 Swanston St., Melbourne
299-301 Chapel St., Prahran
3-5 Riversdale Rd., Camberwell
Cent. 3058 (6 lines), 10524,
Wind. 1605, W 5160.

Hams and Hamming

(By 5LG.)

These notes are written without bias or malice aforethought, and if in the writing thereof the compiler unwittingly treads on one's pet corn, please smile sweetly and forgive him. So now here's for the first scandal of the month.

5ZX called CXICG so long and heartily that he got a blister on his finger.

5KL confided to 5LB that he (5KL) was now the possessor a condenser mike! Home-made, hi!

5BL looked worried and said, "Fone on 40? Oh, help!"

The WIA are going to try body-line against Waymouth Motors on November 10. Now, if it had been five days earlier!

Enough gear to start a radio shop, and only three receivers that worked properly at the field day; good job the committee wrote out lots of directions. Even so, our QSL officer (5RX) got himself so lost that he never saw the gathering of the hams.

And 5RH and Joe McAllister found themselves at Aldgate and not Belair. I didn't know that alcohol radiated on 3.5 m.c. before. Hi!

Who were the two hams who, having had an argument, fought a duel in the traditional way with "park lands" ammunition?

The said ammunition also brightens the ideas of a stonewalling batsman, I'm told.

5WW looked like some prehistoric being, so loaded up with junk was he. However, it worked, as results showed. Hi!

5MD now WAC, and if everyone earned WAC like "Doc" the title would be well worth while. Congrats., O.M.!

5LY also WAC, and in eight hours on QRP.

5FM has shifted QRA close to me now, and I'm a new convert to the use of the death ray. Pete certainly can get DX, though.

5LO wants more WIA traffic to handle. The more the merrier.

5WR evidently has been QSO the League of Nations. He sent a pile of cards away three inches thick, and not a VR amongst 'em.

5TR has gone bush. He joins 5PL at Iron Knob. Any blacks up there, Ralph?

5RF collected his first-class op's. ticket. Congrats., Colin!

5FW awaits results on his second-class attempt.

5CB very quiet; results of cigars and audio amplifiers.

5JH QRL his grocery business.

5GR.—If Gordon makes as much noise on ten as he does playing table tennis, VK5 is well represented. Hi!

5RT.—Bob can give you all the dope you like on antennas.

5WJ puts over FB fone on 80 m.x.

5YK finds time to pound brass occasionally, but is generally QRL, WIA. Rich. is one of the staunchest supporters the Division possesses.

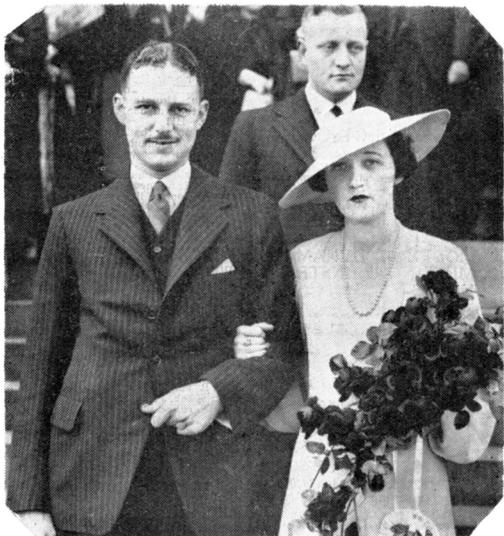
5HD and 5BC, the Lloyd brothers, have each a station in the same house. I'll bet the atmosphere gets electrified when DX looms up and they both want a go at it.

Bumping into old A., then ORSHY—Arthur Cotton—the other day, brought back memories of olden times. What about an old-timers' night or a Back-to-WIA Night? Sometimes I wonder how many of the old hams are with us now.

Scoop 1

"Amateur Radio" Secures Pictures of Secret Wedding of Famous Amateur [and Town Clerk of Gulch View]

3CX GETS HIS ON THE 18th!



LOOKEE!

—"Argus" Photo.

We are glad to be able to present the one and only picture of Mr. and Mrs. Alan G. Brown leaving the church after their marriage on the 18th October. Even his best friends didn't believe him, but we guess that this will convince the most sceptical that 3CX has been and gorn and

done it at last. It has been reported that there were no hams at the wedding, and even the Lawd Mare of Gulchview, 3RX, didn't realise what was about till he read it in the papers on the following day.

So that's the reason that he is off the air—and do we blame him?

"Do unto Others"

By FIVE ELGEE.

B.E.R.U. Notes

(By VK5EG.)

"Sure, I'll QSL, mani tks OM 73, etc." With a gasp of relief the new ham releases the key.

The tense expression relaxes and he allows a smile of triumph and happiness to wander over his face.

His first QSO!

He reaches for the top card of that new and clean pack on the shelf, and with meticulous care fills in the spaces, VK - - Q5R7T9.

He must make a good job of it. An envelop; a stamp; and he is off to the letter box and consigns it on its way.

Weeks pass and no card comes in return. Our ham friend now has several QSO's to his credit; but still no cards. Alas, for hams, inhumanity to ham. Soon he will be as hard-boiled and cruel as the other old stagers.

"Sure, will QSL, OM. Bunkum! ! ! Twaddle! ! ! We have all been through the same stages. All have experienced the same result. Now let us look at the problem set before us.

How can we alleviate this state of affairs? Examine the case, Brother or Sister Ham. To post a card direct costs 1½d. or 2d., and several cards soon make a hole in one's pocket money. The only point in favour of this idea is that the card gets delivered quickly. But the same card through the W.I.A. costs only ½d. for interstate or foreign deliveries and nothing at all for local cards. MORAL! Join the W.I.A. ! ! !

Although it takes slightly longer the card gets there just the same.

Most of the older hams are members of W.I.A. and are familiar with this service, so are we to understand that they are too blase—careless—callous or lazy, to QSL.

Over a period of six months a census of QSL's was taken by a competent observer at my station, and of 100 first QSO's only 40 per cent. QSL'ed. Of these 98 per cent. were NEW HAMS! We all like the other fellow's card—even if only a local. Even if we only put DX cards on the wall. Why not? Do unto others as we would have them do unto us. And here is a point that would make the work of QSL officer much easier.

The idea was mooted some time ago at a meeting of the VK5 Div. If all hams, whether members of W.I.A. or not, were to send in a large self-addressed envelope to the local QSL Bureau distribution of cards would be greatly simplified. The writer adopted the system when first it was mentioned, and it has proved 100 per cent. successful.

There is no more hunting through hundreds of cards for that elusive SLG one. It's there in the envelope waiting for him. There is less time wasted, and no confusion. So why not try it, hams?

So, from now on, O.M., when you say "Sure QSL," mean it! Thanks for QSL sounds much better than "How about that car 'u cowl" and it's much easier in the end.

With the summer season approaching, the Empire stations are again coming through, and in future I hope to furnish regular notes from overseas.

VSIAJ wishes to QSO VK, and is on every Thursday, 7m.c., 7,175 k.c., at 1,500 c.m.t., and will be anxious to supply the VSI end of the contest. "Connie," of VS8AQ, and VS8AX assure me they will also be "on deck."

At the present time these districts are best: QSO from 1,500, c.m.t. onwards.

VU7FY, on 7,285 k.c., and VU2CQ, 7,150 k.c., both ask for VK to keep them in mind, and wish to enjoy the QSO's in October, as last year. Both these stations are workable 1,600 c.m.t., when their zone is usually R5/6 and QSA5.

G6CL remarks: "The September 'T. and R. Bulletin' will contain a full 'story' on the contest, and activity in Europe should be keen."

Nothing has so far been heard of our old friends, VSAF and VSAB.

In view of the approach of the contest, it may be interesting to "hams" to note that the Colonial Office has approved of the list of prefixes submitted by the R.S.C.B., so far as it affects the territories within their jurisdiction. The prefixes altered are as follow concerning the Oceania Group:—

Old Prefix. — Gilbert and Ellice Islands; VP1 and 2, Fiji; VQ1, Fanning Island.

Suggested Prefix. — VR1, Gilbert and Ellice Islands; VR2, Fiji; VR3, Fanning Island; VR4, British Solomon Island; VR5, Tonga Islands; VR6, Pitcairn Island; VR7, nine other Pacific Islands under the British Government.

A full list is published in the June "Bulletin," excluding Oceania. The most important alterations are:—VS, Mauritius, becomes VQS; VP8, Malta, becomes LBI; Gibraltar becomes LB2.

Negotiations are proceeding with the Government of India to secure greater uniformity of prefixes in that region.

Members desiring the W.B.E. certificate are asked to forward their verification cards direct to myself (Box 41, Tallangatta), or to the Federal headquarters, W.I.A.

**SUPPORT
YOUR
ADVERTISERS**

Conventions and How?

The outcome of Federal Conventions of the past few years make one wonder just what we are getting out of them. The same old questions appear year after year, and some of the Divisions spend large sums of money in sending delegates to other States. Others, being unable to afford such expenditure, have to satisfy themselves with a proxy. A proxy is of little value to the Division he represents because he is able to vote as he thinks fit. Then again, one's outlook is apt to change completely when the facts of a matter in question have been explained. Thus, a Division may direct its proxy to vote one way, and after the facts are known, be sorry it did not vote in the opposite manner.

For a successful Convention we must have a representative from each Division present. This is out of the question from a monetary viewpoint. That leaves us with the unsatisfactory position of having to leave someone else to do the battling. The main outcome of Conventions is the effect of the personal contact that the representatives establish with one another. Divisional views and conditions are freely discussed, and a better understanding of the other fellow's point of view must follow. Well then, if this is all we get out of Conventions, why not hold them over the air, say every six months? We are radio men, and if we cannot conduct our business in the sense of the persons we represent, there must be something wrong with our faith in our operating abilities. Under proper control, this scheme should work well. We play chess matches with one State or two, don't we? All that would be wanted would be efficient organisation and good operators.

The Lekmek Aerial System

Australasian Engineering Equipment Co. Pty. Ltd. (T.C.C. Condensers) report excellent business with the Lekmek precision matched Double-Doulet Aerial System. For this system the Lekmek Laboratories of Sydney claim a 50 per cent. stronger reception, free of static, and more stations. It gives access to the world-wide short-wave stations, and improves the volume from interstates. Victorian hams would do well to hop along to Australasian Equipment Co. in Evans House, 415 Bourke street, Melbourne.

A combined meeting of all Sections will be held on the 3rd December, 1935 in place of the General Meeting arranged for the 11th December, 1935.

A talk will be given by
Mr. R. H. Doyle
Weston Dept.
Messrs. Warburton, Franki
"STANDARD
MEASUREMENTS OF
FREQUENCY"

COUNTRY STATIONS FREQUENCY ALLOCATION.

Mr. Thomson requests all country stations to make applications in their usual way for their frequency allocations. All applications must be to hand on or before the 8th November, as after that date Mr. Thomson will be leaving for New Zealand.

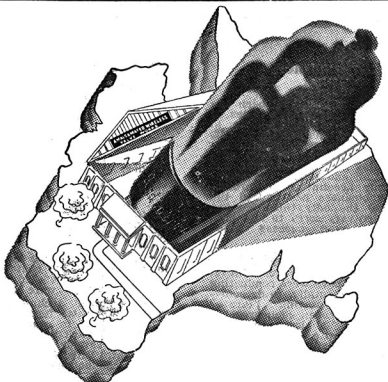
QUARTZ CRYSTALS

Every Crystal tested to 50 watts input to Penthode Crystal Oscillator
Accurate grinding to .03 per cent. 3.5 M.C., 20/-; 7 M.C., 30/-
100 K.C. Xtals. 465 K.C. Xtal "Gates. Prices on application

PROMPT DELIVERIES

MAXWELL HOWDEN (VK3BQ) CONS. RADIO ENGR.

13 Balwyn Road, Canterbury, E.7.



A NEW Australian Industry

Just over two years ago in May, 1933, the Amalgamated Wireless Valve Co. Ltd. produced the first Australian-made Radiotron valve and established a new Australian industry.

To-day employment is provided for a large number of Australians.

Radiotrons are chosen by leading manufacturers throughout the Commonwealth for standard equipment and are acknowledged by overseas authorities to conform to the highest standards achieved in any part of the world.

For better reception, longer life and consistent performance, instal Radiotrons. They improve the tone of all Radio Receivers.

RADIOTRONS

AUSTRALIAN GENERAL ELECTRIC LTD
Sydney, Melbourne, Brisbane, Adelaide,
Hobart.

AMALGAMATED WIRELESS (A/SIA) LTD.
47 York Street, Sydney,
167-9 Queen Street, Melbourne.

Advertisement of Amalgamated Wireless Valve Co.

Divisional Notes

N.S.W. Division

The Institute in N.S.W. has been extremely unlucky to lose the services of one of their most capable officers in Mr. R. H. W. Power, the secretary. Mr. Power, who was secretary since the beginning of the A.R.A. (now W.I.A.), performed his duties in a manner that was an example to all and sundry. A secretary and public accountant by profession, growing business has caused the resignation and the only thing we can do, while we are very sorry to lose him, is to wish him every success. Good luck, Bob, OM.

At a recent meeting of the N.S.W. Council Mr. Macgregor, VK2MY, was appointed Vigilance Officer for N.S.W. to observe how the boys were conducting themselves and, incidentally, to do something about the growing "Pirate" menace. There have been such breaches of the regulations of late that the Council took this step and members are invited to get in touch with 2MY, Mr. Macgregor, with any complaints, etc.

The following is a motion ballotted upon by the members of the N.S.W. Division, who adopted the motion:—

"That the Constitution be amended to provide for subscriptions along the following basis":—

- (a) Full members—subscription £1/1/- per annum, to include "A.R." Full members must be licensed experimenters.
- (b) Associate members — subscriptions 10/6 per annum, not to include "A.R." Associate membership may be held by anyone generally interested in the science of radio.
- (c) Country members — subscription 10/6 per annum, to include "A.R." Country members must reside outside the county of Cumberland.

Resolution 2.—Re Affiliation of Radio Clubs with W.I.A., N.S.W.

"That Radio Clubs be invited to affiliate with the W.I.A. (N.S.W. Div.) upon the following terms":—

- (a) Each Club to pay an affiliation fee of £1/1/- per annum; this entitles members of such clubs to all membership privileges at the following rates. Full member 17/6 per annum, associate member 8/6 per annum, and country members 8/6 per annum.
- (b) This arrangement to take place as from the new financial year beginning March, 1936.

The membership of the Institute is growing and, judging from the number of enquiries, it will grow to even a larger degree in the next few months.

VK2YC resigned the position of 28 m.c. representative in N.S.W., owing to pressure of QSL's and VK2BX, Mr. Brunsden, was elected in his stead. Any-

one interested should write him care of the Institute's Box 1734 J.J., G.P.O., Sydney.

On various occasions the Australian Inland Mission has loaned the Institute gear for exhibition, etc., and in the event of them forming the Australian Aerial Medical Services, the Institute was asked to co-operate and Mr. Chimner was elected delegate to this service.

The October general meeting was held on the 17th and Mr. J. R. Pinnell, VK2-ZR, provided a very interesting lecture on antenna systems, and judging from the number of queries from members a few antennas will be rotated in the near future.

The 500 point bonus as being awarded in the VK-ZL DX contest for 28 m.c. contacts was discussed at length and various opinions were expressed.

The October technical meeting provided a method for the check up on contest contacts and conditions and discussions varied from directional antennas to carrier controlled phone. The president, VK2JX, was, unfortunately, away in Melbourne and missed the meeting.

The entrants in the VK-ZL contest in N.S.W. seem to be doing well, especially those on 28 m.c. and tail scoring should be the order of the day.

On 28 m.c., 2LZ and 2HZ have both successfully contacted Europe, but VK4-EL got across first for the first Australia-Europe contact on 10 m.c. FB, OM.

The Manly and District Radio Club opened their new clubroom lately, and they started a new innovation as far as they have a complete house in which to store their gear and plentiful grounds to erect masts, etc., etc., and they should be congratulated on their initiative.

2JC complains of a pirate using his call sign on 20 m.c. fone and asks him to QRT.

2JZ, of Singleton, staging a comeback challenges all and sundry to a game of draughts over the ether. Please write him at Singleton.

NORTH SHORE ZONE NOTES.

By VK2VQ.

Perhaps the most interesting phase of Amateur Radio occurred during the past month. VK2LZ, who's probably the most consistent of our ultra-high frequency men, succeeded in working all continents, but South America on 28 m.c. and that elusive continent, in the shape of an LU4, was heard calling him, and reporting his telephony as being RS. 2LZ is doubly fortunate in that this peak DX occurred during the contest arranged by the W.I.A. and netted him some 12,000 points—at the end of the second week. VK2HZ, not to be outdone, also broke into the point score with 7,000.

On 14 m.c. Europeans pounded through from early afternoon until evening and

made many contacts with VK. 7 m.c. has its usual following of Yanks, who worked like Trojans for points. The general impression was the increasing number of crystal controlled stations that were heard, the majority with T9 signals. Of course, a contest would not be complete without a grievance and I believe I am justified in saying that several 'phone stations made themselves thorough nuisances during DX hours. One super optimist amused himself grinding out records hour after hour, and was unconscious to the fact that VK3EG was right on his frequency at R.max. plus. However, it's a good old game, so let's make the best of it.

Gather round and get an eyefull! That promised new rig from 2DR has not yet been heard. You leave yourself open to comment, Don. 2AE has caught the exam. fever and so radio is a back number. 2SV has been rarely heard, maybe there's a reason, but do your own detective work if you want to land him.

Jack 2HG has caught a mania for smashing chairs. He declares a party is not complete without a quota of crippled sit-me-downs. Exams have been more or less keeping him out of mischief. Welcome to VK2VI, who has shown rather a misplaced sense of humour in starting up 20 yards from 2HG's RV218. Hi! 2VI, V. J. Gay, 30 Archer Street, Chatswood, at present places itself on the map with a 59 Tritet. Another scheme has come to light from the fertile brain of 2BJ. Keith is all het up over the proposed formation of a district radio club. The only way to catch the boys, OM, is to lay on free beer, but even then it's doubtful, since 2SS is on the water wagon. Nothing stronger than a milkshake can tempt Bob. Oh, yeah!

2VG back to the xtal grinding racket and yet finds time to use loop fone on his 80 m.x. Col! 59, 59, 46 in par. is the line up at 2HA. Suppressor grid modulation is used with quite decent results. 2QF had the gang round to hoist his new stick, and 46's now do the necessary work for him in the matter of ether busting. 2VQ made 6 contacts in the test and each one a continent. Too QRL to take it seriously. Hi! Keith 2VM decided that he needed sympathy when he broke an ankle, so gathered his goloshes and umbrella hot-footing it off to V.I.M. May be a married man when he gets back. 2KJ and DX agreed nicely in the test. 2HY does not get the time to work on 10 m.x., but then he does not put his foot down firmly enough. 2LZ, for example, tells his YL to buzz off during tests; and that's one reason for his success. Take a page out of his book, Roy. Hi! Another xtal has gone into thin air and 2IP is bemoaning the fact in no uncertain terms. These tritet ideas won't work for all and sundry, so try again, OM. Excellent keying is the future of 2WW's signal and he works quite a few on 14 m.c. The mania for busting xtals has spread to 2YC. Hi! Never mind, Jim, in spite of what 2LZ says, xtal is the one and only essential for a decent sig! Mopa! Whew!! Gang, did you hear the way Bill socked RF at the Yanks on 10 m.x.? 2HZ put it over the boys by contacting ON4A4 down there. Exams have placed a ban on 2VE's activities, but he hopes to be on in a

month or so with xtal. Output is the feature of the rig at 2VN. With a single 46 doubler, Morry can blow pea-lamps in the aerial. He has worked quite a healthy list of DX into the bargain. About 100 yards from him a 60 foot stick holds a Zepp with quite a pile of RF in it when 2FM presses his key. Alec has a great little tube receiver and has no trouble with the DX on it. 2PY wallops in from Mosman and is active on both 20 and 40, with a nice T9 signal. Another Mosmanite—2FV—has not been heard so consistently. 2PV was heard with a T5 signal, calling CQ test. Hi! Read the regs. Pete, OB. Heard a WI calling you, though. Fred, 2HI spent a week in hospital—we can't say definitely whether it was the moblie or not—possibly he had only a bout of measles. Hi! 2XC still up with the Newcastle push and no news from him. The band was packed with Yanks calling 2HF in the test. A nice sig and nice keying—what more do you want? 2DA did not lag behind with the DX. Harry certainly shoves a wicked sig across. 2QK with T9 R9 sigs. makes the dynamics bounce over here. Enough of this agony except that for the latest in Mae West vamps you cannot do better than QSO 5UK or 5LD. Whew!

LAKEMBA RADIO CLUB (VK2LR).

The meetings of the club are held every second Tuesday at the club rooms, 334 Canterbury-road, Hurlstone Park. Recently a very successful auction sale was held. Members having radio apparatus they wished to dispose of brought same along on the night of 17th September. 2QX was the auctioneer, and under his very capable hammer many bargains were "knocked down" to those who persevered with the bidding. After the sale refreshments were served, the chief steward being the President (2IC), who was attired in apron and cap for the occasion. At the following meeting two new transmitting members were nominated—2XU and 2VA. After general business, Mr. Pinnell (2ZR) delivered a very interesting lecture on "Wave Form."

On the night of Saturday, 12th October, three representatives from Lakemba attended the Manly Radio Club's "Smoko," held at the new club rooms at Fairy Bower, Manly. A very enjoyable evening was spent, and great credit is due to Mr. Cook, who provided some excellent entertainment, especially when he gave a ventriloquist act; but, not having a doll, he made use of a member of the audience, who had to sit on his knee and try to move his mouth at the right time.

Several members report having worked very good DX during the contest, but at times QRM makes things hopeless. The five-metre group state that the latter band is very dead, most of the boys having gone down to the lower frequencies during the test. The meetings of the club for November will be on the 12th and 26th. Visitors are welcome at any time, and any further enquiries will be answered by the Hon. Secretary.

NEWCASTLE A.R.C. NOTES.

(By 2RG.)

Interesting lectures have been lately given at club meetings by 2FN on "The

Amateur Radio

New Metal Tubes." 2MS on "Cathode Ray Oscillograph," and 2KG on "Suppressor-Grid Modulation."

Local hams have been concentrating on the International DX Contest, and some good contacts were made during the first week-end. 2ZC's bag included 26 Europeans, even with his reduced power of 40 watts. Jim said that, if he hadn't been working during half the week-end, he may have had a real score. Hi!

2DG, who has only been on the air for a short time, uses SE on 20 MX, and, as well as a number of Europeans, recently worked an LU for his WAC. Vy fb work, Keith! 2UF and 2MT are also amongst the 20 MX. DX as usual, the latter now having worked over 40 countries. 2SO does not get the chance to get on much these days. A big bottle is now parked in the rig of 2CS, and the sig. gets out very well. Another bottle the same size is used as the neutralising condenser. Hi!

After a couple of months' inactivity, 2FN is again punching the key, the rig now being 50 Trilet, 210 pa. Occasionally the crystal misbehaves, and a rac. sig. is the result.

Arrangements are being made to instal 5MX RX and xmitters for a plane to ground and vice versa; transmission on the occasion of a local aero nacent. 2ZW and ZC have the work in hand, and their thorough preparations should ensure success.

WESTERN SUBURBS NOTES.

(ZO 2MY.)

Some of the boys are getting a bit slow on QSLL promises lately. KA-1-AP and VU-2-CQ complain of unfulfilled promises. KA-1-AP's card and photo would grace any shack, the photo, being a particularly fine piece of work and well worth any station's QSLL. What about it, boys?

Our sympathies to 2EL, 2XZ and 2RV, who have been visited by burglars. Obviously the one that visited Eric at 2EL, however, was no ham, as he preferred jewellery to that famous '52.

2NJ heard on 40 again with nice T9 note first time since taking unto himself a YF. Congratulations, OB, from the gang.

2MQ also hath said "I will," and now that's over perhaps his FB rig will be brought into operation. Congratulations, Bill, B!

2QR puts out some nice fone on 20 m.x. R max here and sounds FB. Yet on 40 CW sigs. only R6. Sfunny!

Things promise to become rather tangled in Western Suburbs now with the advent of Bill McGowan. We now have seven hams in practically 800 yards radius—2PT, 2DW, 2FO, 2FD, 2MQ, 2HR and 2MY. Still, as they are all QRP stations, things should sort themselves out all right.

2IG getting out well and has good share of DX. Heard W1 and J6 calling him almost on same freq. the other night.

2RY—Ivan has just returned from three weeks' kangaroo shooting. Keener on driving that Vauxhall car than DX.

2VE—Heard on 40 with T5 QRI, but rather a good flat on the key.

2XJ deserves a pat on the fetlock for

the consistent XT9 sig. he puts out.

5LP is another who has a FB T9 sig.

2EJ.—With FB crystal sig. on 40 MX called you on 20, OM. Some Harmonic!

2KF using three-stage xtal rig. Gets out F.B. Works good DX.

2FV uses two rigs—one for BCL hours and one for DX. Hi! Methinks it would be easier to use two keys OM.

2WH uses 59 SC and pair 46 PP, with about 8 watts. Comes in R8 in VIS. FB OM.

2VW going strong with three-stage crystal on 20 ES 80 MX.

2PH must have installed new filter. Now FB T9 sig. Ray, OB, good-oh!

2XU.—Skip on 40, but comes in Fone R8 on 80, and very nice.

2NE.—Fone on 80 R6, but inclined bit wobbly.

2WR.—Plus Mrs. 2WR. Consistent, good fone on 80. Quite right, Mrs. 2WR, Melbourne is a splendid place from Sydney.

2LA.—Nice T8 note, but inclined to murder the L and make it 2A1A. By the way, OM, was it May or Jackie Mann at 5KM? Hi!

Some of the local stations have hefty Overtones or Harmonics. During listening in 2AN, 2NP and 2FY were R8 on both 20ES and 40MX bands; also 2ZR.

2ZR getting out well on 40 ES. 20 QRI sounds much better on 20 than 40, Jack.

2JT getting bit DX on 20. A rumored serious contender in the VKZL test.

2HP on 20 MX, with wavy PDC signal. Rather hard to follow.

2SS on 20 MX, with PDC sig., R7/8, and nice copy.

2WP.—Probably his fourth op., judging by his flat on 20 MX.

2BN on 40 QRA. Hurstville. Key clicks. R max plus at five dock. How about a filter buddie?

The ICW power leak signing VIT still holds informal afternoon parties perched comfortably inside the 40-metre band of a night. For the love of Mike, lay off there during the test!

2VG.—Rex seems to spend more time with that sailing skiff than he does on DX. Perhaps it's reaction after the WAC!

2EL contemplates a speed launch for the summer. Did hear that his FB rig was for sale very cheap. There's a chance of a FB rig, with 882 in final, for some ambitious laddie.

2FD using 250 modulate, a 45 on 40 MX, with FB results. R9 from VK7, and sounds FB here. Also busy building condenser mikes. Sold his Sniggle Snooper and rebuilt TRF job.

2GR heard on 20 MX, working duplex fone with 2 MK on 80 MX. What oh, that feed back, Alec, old boy!

2MY.—QRT rebuilding for test.

2FO using some nice fone on 40. Wonder how it would go on 160?

2DW on fone on 40, but not up to the usual standard; carries plenty A.C. modulation; percentage appeared small.

ZONE 2.

(By VK20J.)

2EU active again on 7 MC, but slight frequency shift noticeable.

2IG not so active as usual. Reg. had trouble with his antenna, but found meter defective.

2VK having first trip as marine op. to Solomon Island.

2QE erected doublet antenna and appears to have little more punch.

2QD studying for examination and QRT.

2YI has new 88 Super, which rolls in the DX.

First morning of VK-ZL here spoilt by heavy QRN on 7 MC. 14 MC was lively.

Congratulations to 2LZ and 2HZ for their fine efforts on 28 MC, both working W. and Europe. Second week-end much improved on 7 and 14 MC, and 3EG was rewarded with 35 countries.

Loudest DX sigs. heard thus far in contest are W6KRI, R9 plus on 7 MC, and HB9AT, R9 on 14 MC.

Victorian Division

KEY SECTION NOTES.

(By C. Woodward, VK3YO.)

A poor attendance at the October Key meeting was attributed to the nearness of the DX Contest, as well as the stifling weather.

Mr. Were (VK3DP) kindly donated a pair of special lead-in tubes as a trophy for the contest, and was warmly thanked for his action.

Much merriment was caused by the account of the various stations partaking in the 56 MC field day during September. Despite the rain and wind, everyone had a good time, even the Spartans on the top of "Pretty Sally."

Prior to the contest, the report of the doings of the different members was:—

3OC getting more or less indifferent results on 14 MC.

3DP was WAC in three hours on 14 m.c. (What a difference!)

3UH has had his first DX contact on 56 m.c.—500 yards!

3JJ is off the air at present, but is hearing the W's on 28 m.c.

3UW has built a new three-stage C.C. transmitter, and is getting out well.

3WQ wants a sked on 56 m.c. for Sunday, 24th November.

3RJ is recuperating on 28 m.c. after the Fisk contest. He would like some information on how to get a T9 note on this band when using a single 46 OSC.

3JO hopes to be on 56 m.c. soon. He is building a PP unity-coupled rig, using 112A's.

3UK has the same report as 3RJ, apart from the note. Whoever heard of the R.A.A.F. with a bad note? (Who did?)

3CP now works South Americans like locals. This 14 m.c. beam antenna seems to be doing its work. It consists of two

vertical half-wave antennae, a half-wave length apart, with a quarter-wave matching stubb and matched impedance feeders. It also has a switching arrangement for changing the direction of the beam.

At the time of writing, the VK contest is half over, and by appearances 3KX, 3EG and 3MR are all in the running with large scores.

3RX had the bad luck to lose a tube on the first week-end, after having started by working a TL.

3YO fractured a crystal on the second week-end, just when things were starting to happen.

The conditions on 14 m.c. were peculiar on the first week-end, in that many European countries were heard at loud strength, but contacts were very hard to get.

On the second week-end conditions were extremely poor until, at nearly 3 a.m. on Monday morning, the 28, 2T and ZU were RS, and could be worked easily. However, the contest is going with a swing, and many thanks are due to the large number of overseas stations that are making our contest worth while.

WESTERN DISTRICT NOTES.

(3HG-30W.)

3WE, of Birchip fame, is now in Hamilton, but has not been heard from there yet. 3JE is talking of selling out. 3JA is still working lots of DX. Has changed to 14 m.c., where conditions are so good at present. 3KX is very active in contest. 3NQ has given up ham radio in preference to growing gladioli! 3GQ operating mobile B.C. station, 3YB. 3GC wants only Africa for WAC. Recently worked HCIFG for an hour and a half. 3NK not very active; has ideas that never seem to eventuate. 3PG, 28 m.c., hearing quite a bit, but no QS yet. Still working swags of DX on 14 m.c. 3OW put up a beam pointing to South America, and at last gained his WAC. Very FB. 3HG moderately active, mainly on 14 m.c., and getting a fair share of DX. 3EG and 3OW recently contacted several W's on 3.5 m.c., but it seemed to be only a patch, as after working them for three nights they faded out, and nothing has been heard since. 3HL not heard in the contest this year; guess he is having a spell after his efforts in the Centenary and Fisk contests.

GOULBURN VALLEY NOTES.

(By 3DW.)

Shepparton notes conspicuous by their absence again last month. However, things have taken an active turn again. So here we are.

The writer and Mrs. Tacey spent last week-end (October 13-14) enjoying the hospitality of 3KR and family, plus that of 3TL, 3KI and 3OR.

Arriving at Kerang 10.30 a.m. on the 13th, a very sleepy Kenneth answered the hooter's CQ and immediately passed scathing remarks about Morris. Lazed around till lunch and then went over to 3TL, where we found Mr. Treb in the depths of a radio handbook, and after getting him clear of this we inspected the gear (and very nice, too) and set sail for Lake Boga per TL's car. Arrived there in due course, but it appears that Treb's

car is like a bad dog at times and treats sheep as such. No, I won't say any more; just ask 3TL about it next time you QSO. Hi! A conference on speed reduction possibilities on arrival at KI's resulted in many and varied suggestions being put to Mr. Treb, including such as reducing the tyres from their usual inflated importance to tying logs on the back bumper, none of which were necessary, as our driver adopted a more leisurely speed from there on and received many congratulations. Continuing the trip, with 3KI now included, we moved on to Swan Hill, and an enquiry re inspecting 3SH resulted in a certain sweet young thing (QSA nil, R nil minus) informing us that "the kiddies' session is in progress, but if you would care to call back at 7.30 p.m. we will be glad to let you see through." Oh, yeah! The general opinion of 3SH is now very XHLZ!

Next call was 3 Zebra King's, and arriving just too late we found that "the voice of dynamic personality" had taken the YL out for the afternoon; so, after inspecting the noise factory through cracks in the door decided to inspect various places of interest, such as power house, swimming baths, etc., under the careful guidance of 3KI. A final call on Jimmy before returning to Lake Boga gained us little else but our own fun. No, we didn't do a thing, Jimmy; you must have been dreaming. Hi!

One of the most interesting parts of the trip was at 3KI, where John explained the various phases of citrus fruit growing, but of particular interest was the application of nitrogen to various trees by the gang.

Tea adjournment arrived, and then we retired to the shack to view the RK20 and listen to KI's dope on same. Followed a QSO with 3SN by schedule with DW, and on learning of the RK20 Dud. sent orders to pinch it, but all efforts in this direction were futile. Time passed much too quickly, and we arrived back at Kerang at midnight, thoroughly tired out, but pleased. Monday morning found KR, TL, Mrs. Tacey and DW rattling along to Lake Meran in Ken's "Lizzie," where we arrived in due course.

Murray was found busy shearing, although was soon out to show us the hidden glories of the lake and 3OR. Murray has been troubled with swallows sitting on his supply lines and other things, and his simple but effective scheme to combat the nuisance is a revelation. Same may be said of the amplifier at OR's, with triple speakers and quite a lot of Bruce Mann's effort in it. Congratulations! Time waits for no man, so we returned to 3KR's for lunch, and after inspecting the local talkie's rig set our course for Shepparton, the arrival at said town completing one of the finest week-ends to date. Many thanks, gang, and hope to have you over here some time.

General topics to date are:—3SN only needed an African to WAC twice on 20 m.x. last week. Dud. has ordered an RK20 from U.S.A. Howzat? Bruce Mann and Roy Milledge sat at last examination. Best luck, fellows!

One of the best pieces of information to hand relates a story of Roy (3CF) doing battle with tractors, grease guns (sounds like Abyssinia to me) and snakes. Says

it makes his hair stand on end. And "How?" we'll say.

3FN in trouble with his rig; tells me the locals are drinking too much snake oil and he can't get time off. 3DR very quiet, canning season preparations keeping him going. 3CN contacted couple of G's on 20 m.x. 3EP hasn't been heard of for weeks. What's the matter, Ted? 3KI gave 3DW an FB xmtr rack, and this is now well on its way to hold a 20 m.x. rig, consisting of 59 Tritet, 46 doubler and 210 PA. 3KR using a 38 tube, with 400 volts on plate as CO, and getting splendid results. 3TL, considering 210's in parallel for final amplifier. The antenna systems at this station are supported on an 80-foot stick, and consist of a full-wave 40 m.x. Zepp flat top, a 40 m.x. half-wave vertical, and two half-wavers at different angles. Well, so long; see you next month, 73.

South Australian Division

(By Leith Cotton, VK5LG.)

A well-attended general discussion meeting was held at the club rooms on 16th ultimo, and among the items were:—The Division has challenged a leading motor firm to a cricket match; code practice over the air from 5WI; demonstrations with the aid of meters, etc., at student classes; social activities, and a five-metre field day to be held in the near future.

On Labor Day the Division staged one of the most successful field days that has been held in VK5, a hidden transmitter, sealed directions and rough scrubby country being the ingredients. The transmitter was found by 5WW, he being the first man in with an unopened direction sheet.

The DX contest is in full swing now, and several VK5 hams are making good scores. However, the points given with 28 m.c. QSO's have robbed the contest of a great interest, and I believe it is mainly a case of "see how many new countries" one can work. Certainly 10 metre work will benefit enormously through it, but in a DX contest of this nature I think all bands should carry the same score, irrespective of ease or difficulty.

As we go to press we hear that VK2LZ is now WAC on 10. This, I believe, is an Australian record—is it a world "first"? Heartiest congratulations to VK2LZ!

The traffic-handling contest held in VK5 recently resulted in a win for 5MR, 54 points; 5ZX, 39 points, and 5MZ, 30 points, filling second and third places. Mr. Lucas won the students' receiving contest, held in conjunction with the above test. One noticeable feature of these contests is the remarkable enthusiasm displayed before the start and the lack of it afterwards; i.e., if all contestants had forwarded logs, etc., the results would have been much different. 5MK would have scored 80 points and others would have boasted higher scores. Of 35 starters, only 15 furnished logs at the end of the day. This, besides being unsportsmanlike, is also very hard on the other contestants who follow the rules. The receiving contest was also a farce, only one log being returned in this section. The students

clamored for a share in the fun, but of nearly 20 starters only one survived the course. Very encouraging for the conveners of tests, chappies! And if next time you find yourselves out in the "cold, cold snow," you will know who to blame.

The last lecture evening of the Division was held on 25th September. Mr. A. Reiman (VK5JO) gave a very instructive and interesting lecture on "Crystal Grinding for the Amateur."

Western Australian Division

By 6LJ.

The gang have been a bit quiet lately: must be recuperating after the Fisk contest. 6SA seems to be the best over here, and 6MN next. Several others participated, but 6SA was the main one as he was on all bands, including 28 m.c. Some of the local lads have been doing some research work on 56 m.c. and have made some good notes. All dope will be found in an article elsewhere. 6CA, 6HW, 6CY and 6GEH were the culprits. The classes of the Institute are going exceptionally well. 6BN and 6JS taking theory, and 6RC and 6AE morse, and all members are very progressive. The portable boys put in some good work in co-operation with the aero club, when they assisted with gear at the pylons during the heat events, and also at the motor cycle club's TT, at North Beach. All went off very well and the main event was the aero pageant on October 5. 6BB had his PA at the drome and his transmitter at a pylon. 6WI at another pylon, and 6MY and 6WP at our local cement works, and JS with a few commercial receivers of his dotted around at the aerodrome. All work was done on 40 and 80, and JS had a separate receiver for each pylon trans. Quite a gathering. Hi! The International dx contest is the next main item and will be in full swing by the time these notes arrive in V.I.M., and will be over when the mags get in VK6. 6MN, 6JW, 6LJ and others, are all set and keyed up for the occasion. 7 and 14 will be the calls with, praphs, a few on 28, but dx will be scarce. I think on that 3.5 is hopeless for anything, but ZL one is VK6, and ZL's combined with VK, so still no go!

Conditions generally have been real good, tons of dx rolling in from 1,000 to 1,700 GMT, on 14 m.c., and from 0800 to 2,200 GMT on 7 m.c. 6MN, 6FO, 6JW, 6LJ, only VK6's keeping the former band warm, and numerous others on 7 and 3.5 m.c. Yanks on 7 keep buzzing on and off, and Europeans piping there on 14 m.c. Heard a VK3 call HC2MO the other night, but no sign was heard of the South American. Hi! If he was heard a local mutiny may have started. Hi!

6AE burns quite a lot of oil—must be working O.K. now, Jack. 6AC, a man of leisure!

6BB qrl aero pageant! Takes Jack a month to get ready and a month to pull things to bits! Hi! 6BC not heard cept from 6SR on Sundays. 6BN keeps classes going and the chickens running! Hi! 6BO heard on 7 m.c., too—qrl man-made

static for Hamdon! 6CA, on 56 m.c., with pair 45's and E406 Heising mod. Tears around in a car listening to sweet "moosic". Hi! 6CB, shus, boys—creep past the sleeping beauty! Hi! BEAUTY? 6CP using the Yanks as a playground! 6Charles gear going O.K. in conjunction with a doublet Aunt Enna! 6CY, on with RANR and qrl, too. Making hay while the sun shines. Hi! 6DA—where, oh, where, is Fred? Not on at all. 6DH has his bi tri annual spells off the air. Dave (6DH) has an Austin now, so may be along to field days in future. 6DJ on key at 6FO all the time. Fb. Bill!

6FL on again with xtal. 59 Tritet. 46 FD is F704 PA. 6FM transferred to Goomalling; will be on again before long. 6GM still up on 3.5 with supp. grid mod. on a 59 buffer. 6GW, another up on 3.5 with fone. George is qrl. 6ML B station, too. 6HF, as mad as 3CN and the VK6 Divisional, Bank of Australasia. The only difference is that 3CN comes on the air. Hi! 6HW—'ole Harry, has been ill for some time, when a nag tried to break Harry's ankle by merely treading on him. Hi! Better go where you are looking. Hi! 6JL doing fb where the brass-coloured nuggets are! 6JG still punches the brass occasionally. 6JK advises his return to the ether busters club. Hi! 6JH at V.I.P. observatory plays around with types. O.K.'s in sure grab with modulation termed Heising! The sez "Hello!" and the boys follow him up and down the band! 6JS qrl on 200 metre band entertaining BCL's and good quality at that. Quite a change when a Ham gets good quality fone. Hi! 6JW qsoed on 14 m.c., but things not so hot with Jack. Antenna trouble worrying him! 6KC—the Katanning club gone quiet of late. Why ours? 6KO, another one never heard lately. Once again we query—why? Oh, I forgot QYL! 6KZ with xtal and a grid qrl on 7 m.c. 6LJ has separate aeriols for 7 and 14, and uses windows only.

6LK putting up reflector system on top of 6AM's 180 feet stick—shud be O.K. minor! 6LR seldom heard, 'cept the Sabbath PM, when he churns a concert over on 3.5. 6LY—Oh, where, oh, where, has the Tiger Boy gone?—but he has YLitis. R9 plus qsa 10. Hi! Ralph was finishing off his 59 Tritet, when he saw this YL and that stage still wants completing. Hi! 6MN settled on 1.75, 3.5, 7, 14 and 28. The all band expert. Also qrl RAAFR work 6MS up at VIN doing some work on 7 m.c., with CW. 6MW still has no antenna. The breezes sway the tree that Bill intends to play Tarzan with so that he doesn't like to start just yet. 6PK may be on again shortly. 6NJ, on 7 m.c., with some fone, keeps the dual wave bcl's amused. Hi! 6RD no further uses the clothes line. Hi! 6RJ, on 3.5 with xtal rig. 6RK—ole Roger at north of Kalgoorlie is heard quite regularly. 6RI, —Publicity Officer—doing relief work on relays at 6AM. 6RW came to town the other day and looks well! Has just asayed new gra and sez all O.K. again. 6SA still qsoes dozens yanx and uses 28 m.c. still—uses 6 stage xtal for 28 m.c.—and all 46's. Must have been good for the business. Hi! 6WI returns, but still qrp for present. 6ZS—'Ole Bill! on 3.5 qsoing ZL's, VK2's and 3's as tho

locals. Fb, Bill! 6WM out with more portable gear and makes things buzz. Yes! He has vibrator power supply! Hi! 6WL at Brookton very qrp. Uses A409 mod. with A409 PA and 135 volts B batteries. Gets about two watts, but sounds O.K. 6WP, another bc'er on 200 m.x. 6WR now! now! Bill has not been seen, heard, worked or even spoke about for—must be a long time. Hi! And last, but not least, 6ZZ, at 6KC club. Not quite jake for qso, but will be O.K. before long.

Tasmanian Division

(By 7PA.)

(Address all correspondence to Box 547E, G.P.O., Hobart.)

A special general meeting of this Division was held on 24th September to discuss the matter of altering Item 8 of the Articles of Association. The item relates to the personnel of the Council, which is limited to seven members, one being a country member.

The Secretary brought this matter before a previous meeting, on the grounds that, out of the six local members constituting the regular Council, some were not able to attend at most meetings, thus leaving the voting on matters of material importance to the Institute to some three or four members. The proposal was to increase the Council to 10 members, with still only one country member, and thus have nine, instead of six, available, so that it should be possible to have these meetings better attended.

After hearing the Secretary's views on this matter, it was put to the meeting, and after a lengthy discussion was carried unanimously. The three vacancies thus created were filled by Messrs. N. Gillham, J. Brown (7BJ) and K. Valentine (7KV), who were elected unopposed.

This seems to be a good move, as the membership of the Division has increased remarkably in the last 12 or 18 months, leaving more business to be handled, and thus more responsibility for the officers entrusted with the work of carrying it out. It is also pleasing to see the younger members, in the persons of 7BJ and 7KV, showing sufficient interest as to be prepared to take office.

The special meeting was closed immediately the business was completed, and a general meeting was then declared to discuss any general business that might be desired.

The outcome of this section of the meeting was the arranging for a field day for 27th October, to take the form of a more or less social outing with YL's, YF's, etc. accompanying, the area to be within a 10 miles' radius of Brown's River.

While speaking of field days, it is pleasing to note the special reference made to VK7 field days at a meeting recently in VK5 by their Convention delegate (5WP), who had the opportunity of attending one when here this year. Cheers, Bill! we're pleased that it impressed you so much.

The October general meeting was held in the club room, Elizabeth-street, on the 1st, it so happening that it was the first Tuesday. Attendance was fair.

General business and accounts were handled, and the VK7 per capita payment was at last included. A legal interpretation of the Articles concerning outstanding subscriptions and the matter of control of membership grading was read, and, on the ruling given to the grading question, it was decided to call another special meeting to discuss and, if necessary, alter the Articles governing this matter, to define more fully and to introduce controlling limits to the grades. After discussion, it was decided to give notice that this special meeting would be held on the night of the next general meeting, and save the necessity of two meeting nights.

At the completion of the lecture, the lecture for the evening followed. This was given by Mr. Brettingham - Moore, a student member, and took the form of an outline of a series of experiments with Neon Tube Oscillators, conducted by the lecturer. The lecture was well arranged and illustrated with graphs, after which a practical demonstration was given with an audio oscillator constructed by Mr. Brettingham-Moore.

At the conclusion of the lecture, the President, in thanking the lecturer for the trouble he had gone to in arranging the details, expressed appreciation of the action of Mr. Brettingham-Moore, and asked that more of the younger members might take this as an incentive to brush up on their favourite subject and let us hear about it in the near future. A hearty round of applause was extended to the lecturer, and the meeting closed.

On the bands, 7JB is working contest at express speed, and is giving the BCL's a rest.

7KV is taking a passing interest, too, and I hear that he has broken the VK7's 10-metre record by working a Yank recently on that band.

7CW still does his stough on 200-metre phone, and 7PA is again operating on this band with a new rig, and is busy rebuilding the SW rig into the rack and panel outfit now, and hopes to be on the air on CW again soon.

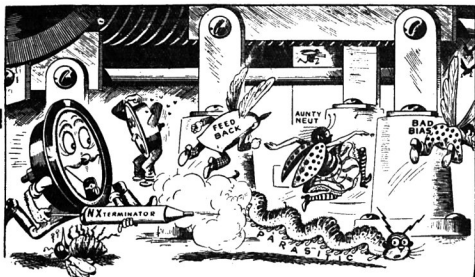
7JH is busy with an instruction class at present, and not much time for QSO's.

7BJ is learning to call "Fares, please!" at the moment. How do you like the early rising, Joe?

Complete your Volumes..

Back Issues of "Amateur Radio" may be obtained by writing to the Secretary
Magazing Committee W.I.A.

Box 2611W, G.P.O. Melbourne
PRICE TO MEMBERS 4d COPY



Are these your Difficulties !!

*Good Instruments are Necessary to
Locate them.*

Westinghouse MX and NX Radio Instruments

will soon be available

Write for Details and Prices

* * * *

Westinghouse Metal Rectifiers & Westectors

Write for Interesting Pamphlet

* * * *

Alan S. Duke Pty. Ltd.

486 BOURKE STREET, MELBOURNE, C. 1

Telephone Central 1255 (2 Lines)

HAMADS

Advertising space in these columns is available to those wishing to sell, buy or exchange, at 3d. per line; approximately five words to the line. Minimum charge, 1/-. To ensure insertion enclose postal note or stamps with copy, and address to the Advertising Manager, "Amateur Radio," 126 White Horse Road, Box Hill, E.11., Victoria.

BRIGHT STAR RADIO—VK8UH.
517 Lower Malvern Road, Glen Iris,
S.E.6.

CRYSTALS accurately ground from best Brazilian Quartz and tested to 50 watts input to penthode oscillator, 200, 160, 80 meter, 10/-; 40 meter, 25/-. Plug-in type Holders, 7/6 each. Power Transformers, 300 watt, 2000 volts each side of centre tap, at 150 milliamps, £4; Filament Transformers, up to six windings, 10/-. Call or write above address. Satisfaction guaranteed.

NOTE: The above prices don't include freight or postage.

FOR Sale.—Generator, 600v., 200 mls., in perfect order, best offer, also 211E, 100 per cent., £5. VK3RI.

FOR Sale or Exchange. Weston Photronic Cell, 2 years' written guarantee, sell for £2/10/-, or exchange for H.T. supply delivering 400v. at 100 m.a. and 5Z3 rectifier (or 10/-). VK3WB, 20 Wheatland road, Malvern, S.E.4.

SPECIAL BARGAINS (November only). 1 Readrite 0-100 M.A. 2in. Dial, 8/-; Bud. Porcelain Standoff Insulators, 9d. ea; 1 10,000 Ohm 20 watt Gridleak, 2/6; 1 .00035 mfd. 1000v. Var. Cond., 12/6; 1 Weston Model 301 0-100 M.A. 32/6; 2 RAVAC 866's Rectifiers, 25/- ea. All the above are brand new. Cash with order, we pay postage. B. FALKENBERG, BYADUK, Vic.

XTALS. Use new CUTS ground to within 3kc by W9ADN. 80 mx AT cut, £1; AT mx AC cut, 15/-; 40 mx V cut, £1; Biley holders, 6/3. AT cut has zero drift. All cuts have greater activity and handle more power, due lower internal stresses. Full info, VK3RJ, 23 Landale street, Box Hill.

(Continued from page 13)

the greatest forward step which has been made since we received our call signs as official Reserve stations. The work of both District and Section Commanders will be immeasurably easier, as traffic should be able to slip through in very much shorter periods. It will take some little time, no doubt, before we can settle into the changed conditions, but I'm sure, when we do, we will wonder how we ever kept going efficiently under the old system.

As there have been no regular schedules this month, traffic totals are too small to be included.

SIXTH DISTRICT NOTES 6ZI—6MN.)

The recent flight of Demons and Bulldogs to Perth did not arouse much interest or enthusiasm owing to lack of traffic and little incentive was given to daily watches, which were looked upon by reservists as more or less a moral obligation. The channel between 6B1 and 5A2 proved erratic owing to adverse conditions, but all members concerned kept daily watches in case of emergency. Recent Sunday watches were startled when 6Z2 put in an appearance on 3.5 m.c. after an absence of several months. 6A2 still keeps watches like clock work and is scratching to get a 28 m.c. signal up the antenna. Stan. Hogg is waiting his call sign allocation, and is not installing a rotary converter, as previously announced, but will use the 220 DC mains except on Sundays, when the power is off until 1600 hours. 6A5 can be heard experimenting with mikes. We had a short visit from 6A3, who maintains consistent enthusiasm. 6Z1 is closed down for three weeks whilst away in the bush on business. 6B1 now boasts a FBXA receiver.

It is the PLAIN DUTY of every member of W.I.A. to support the advertisers in these pages, and when doing so MENTION "Amateur Radio". Not much trouble to YOU—but it means a lot!

AMATEURS

Do you Q.S.L?

WE can supply you with Q.S.L
Cards printed in two colors on an
attractively tinted board at—

12/6 for 250

17/6 " 500

27/6 " 1000

47/6 " 2000

or on the same board printed in
one color only—

10/- for 250

12/6 " 500

17/6 " 1000

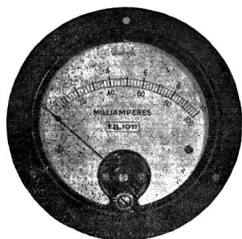
27/6 " 2000

make your Cards STAND OUT.



Elsam Printing Coy. Whitehorse Rd, Box Hill,

SIEMENS ELLIOTT



BRITISH RADIO INSTRUMENTS

**FOR ACCURACY
RELIABILITY
and SERVICE**

**STOCKS OF MINIATURE INSTRUMENTS AVAILABLE FOR
D.C., A.C. AND R.F. MEASUREMENTS IN MOVING COIL,
MOVING IRON, THERMO COUPLE, RECTIFIER PATTERNS**

**Submit Your Instrument Problems
to us**

SIEMENS (AUST.) PTY. LIMITED

**SYDNEY, MELBOURNE, BRISBANE, ADELAIDE
H. C. Little & Co. Ltd., PERTH. F. H. Fearon. NEWCASTLE**

HOWARD RADIO PTY. LTD.

Vere Street, Richmond, E.1, Melbourne

Country Distributor for the State of Victoria